IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

In re Patent Application of
LINDQVIST et al
Serial No. 09/331,808
Filed: January 27, 2000
Title: IN VITRO PEPTIDE OR PROTEIN EXPRESSION LIBRARY

Atty Dkt. 117-357
C# M#
TC/A.U.: 1639
Examiner: Wessendorf, T.
Date: April 10, 2006

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

☐ **Correspondence Address Indication Form Attached.**

☐ **NOTICE OF APPEAL**
Applicant hereby **appeals** to the Board of Patent Appeals and Interferences from the last decision of the Examiner twice/finally rejecting applicant's claim(s). $500.00 (1401)/$250.00 (2401) $

☐ An appeal **BRIEF** is attached in the pending appeal of the above-identified application $500.00 (1402)/$250.00 (2402) $

☐ Credit for fees paid in prior appeal without decision on merits -$ ( )

☒ A Response to Notification of Non-Compliant Appeal Brief is attached. **(no fee)**

☐ Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s)
One Month Extension $120.00 (1251)/$60.00 (2251)
Two Month Extensions $450.00 (1252)/$225.00 (2252)
Three Month Extensions $1020.00 (1253/$510.00 (2253)
Four Month Extensions $1590.00 (1254/$795.00 (2254) $

☐ "Small entity" statement attached.

Less month extension previously paid on -$( )

TOTAL FEE ENCLOSED $ 0.00

Any future submission requiring an extension of time is hereby stated to include a petition for such time extension. The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our **Account No. 14-1140.** A duplicate copy of this sheet is attached.

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NIXON & VANDERHYE P.C.
By Atty: Mary J. Wilson, Reg. No. 32,955

Signature: Mary J. Wilson

AF/1639

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of — Confirmation No. 2109

LINDQVIST et al — Atty. Ref.: 117-357

Serial No. 09/331,808 — TC/A.U.: 1639

Filed: January 27, 2000 — Examiner: Wessendorf, T.

For: IN VITRO PEPTIDE OR PROTEIN EXPRESSION LIBRARY

* *

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RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF PURSUANT TO 37 CFR 41.37(d) AND MPEP 1205.03(B)

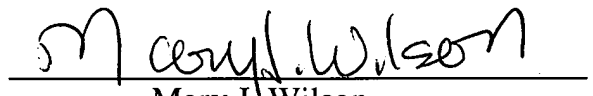
Sir:

In response to the Notification of Non-Compliant Appeal Brief dated March 10, 2006, and pursuant to MPEP 1205.03(B), Appellants submit herewith a summary of the claimed subject matter as required by 37 CFR 41.37(c)(1)(v).

Given the provisions of MPEP 1205.03(B), it is believed that the attached is fully responsive to the Notification but it is requested that the undersigned be contacted by phone if anything further is needed.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 
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(5) SUMMARY OF CLAIMED SUBJECT MATTER

The present invention, as claimed in claim 21, and claims 22, 24-29, 34, 35, 39 and 40 which depend therefrom, relates to a method of producing a peptide or protein expression library which displays a population of peptides or proteins. The peptides or proteins are specifically associated with the DNA encoding them through covalent binding of the peptides or proteins to the encoding DNA. The method comprises at least the following steps:

1) preparing a genetic library of a population of DNA molecules, each DNA molecule comprising:

(a) a nucleotide sequence encoding a binding moiety comprising an amino acid sequence which is a *cis*-acting DNA binding protein which binds specifically to the DNA encoding sequence through covalent binding of the amino acid sequence to DNA, and

(b) a nucleotide sequence encoding a display moiety comprising an amino acid sequence for display, and wherein the display moiety comprises at least one site of attachment for the binding moiety, and

2) expressing the genetic library thus formed.

The population of peptides or proteins thus produced is each specifically associated with the DNA encoding sequence through covalent binding. Support for this aspect of

the invention can be found throughout the application, with particular attention being directed to page 5, line 32 to page 6, line 12, page 7, lines 27-30, and original claim 1.

The present invention, as claimed in claim 34, and claim 35 which depends therefrom, relates to a method of identifying a specific target-binding peptide or protein. The method comprises: a) contacting a peptide expression library with a target molecule, b) selecting and isolating a library member that binds to the target molecule, and c) isolating from the library member the peptide or protein that is bound to the target molecule. The peptide expression library of step (a) is produced by a method comprising at least the steps of:

1) preparing a genetic library of a population of DNA molecules, each DNA molecule comprising:

(a) a nucleotide sequence encoding a binding moiety comprising an amino acid sequence which is a *cis*-acting DNA binding protein which binds specifically to the DNA encoding sequence through covalent binding of the amino acid sequence to DNA, and

(b) a nucleotide sequence encoding a display moiety comprising an amino acid sequence for display, and wherein the display moiety comprises at least one site of attachment for the binding moiety, and

2) expressing the genetic library thus formed.

The population of peptides or proteins thus produced is each specifically associated with the DNA encoding sequence through covalent binding. Support for this aspect of the invention can be found, for example, in the paragraph bridging pages 37 and 38 and in original claims 15 and 16.

The present invention, as claimed in claim 36, relates to a method of assaying for the presence of a target molecule in a sample. This method comprises:

(a) contacting the sample with a molecular probe comprising:

(i) a peptide or protein target-binding moiety that selectively binds to the target molecule, wherein the target-binding moiety is covalently bound to DNA encoding the target-binding moiety, and

(ii) a reporter moiety

wherein the contacting is effected under conditions such that the target-binding moiety can bind target molecule present in the sample selectively; and

(b) detecting the presence of reporter moiety bound to the target-bound molecular probe. Support for this aspect of the invention can be found, for example, at page 39, lines 3-13, and in original claim 17.